

Notice of Allowability

Application No.

09/725,289

Examiner

Christopher O. Onuaku

Applicant(s)

SHIDA ET AL.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ The drawings filed on 29 November 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) *
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 11/29/00
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

1. Claims 1-10 are allowable over the prior art of record.
2. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the invention relates to a decoder suitable for decoding MPEG data and a reproducing unit comprising the decoder, including implementing slow decoding performed when coded data is input at a slow speed slower than a normal speed with a simple hardware structure.

The closest references Nagata et al (US 6,643,449) teach a recording/reproducing apparatus/method, a video data recording apparatus/method capable of receiving digital broadcast for its recording/reproduction, and Hallberg (US 6,658,199) teach a video recorder/method for constructing trick play mode video displays from an MPEG-2 digital video transport stream using a digital video recorder.

However, Nagata and Hallberg fail to explicitly disclose a decoder, where the decoder comprises a processing control part instructing, when the coded data is input in the decode part at a speed slower than an original speed expressed by the time control information, to start decoding the coded data per unit and start outputting decoded data per the unit at a time suitable to the slower speed on the basis of the time control information, a storage part temporarily holding the decoded data output from the decode part, and an output control part outputting contents for one unit from the decoded data

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held in the storage part in a period suitable to the original speed on the basis of the time control information.

Regarding claim 10, the invention relates to a decoder suitable for decoding MPEG data and a reproducing unit comprising the decoder, including implementing slow decoding performed when coded data is input at a slow speed slower than a normal speed with a simple hardware structure.

The closest references Nagata et al (US 6,643,449) teach a recording/reproducing apparatus/method, a video data recording apparatus/method capable of receiving digital broadcast for its recording/reproduction, and Hallberg (US 6,658,199) teach a video recorder/method for constructing trick play mode video displays from an MPEG-2 digital video transport stream using a digital video recorder.

However, Nagata and Hallberg fail to explicitly disclose a reproducing unit, where the reproducing unit comprises a decoder and the decoder comprises a processing control part instructing, when the coded data is input in the decode part at a speed slower than an original speed expressed by the time control information, to start decoding the coded data per unit and start outputting decoded data per the unit at a time suitable to the slower speed on the basis of the time control information, a storage part temporarily holding the decoded data output from the decode part, and an output control part outputting contents for one unit from the decoded data held in the storage part in a period suitable to the original speed on the basis of the time control information.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kadono (US 6,564,004) teaches a reproducing apparatus/method in which moving picture data read out from a recording medium is once accumulated into a buffer memory and when an amount of accumulated data is less than a predetermined amount, a processing speed of an image compression decoder is reduced, thereby allowing images to be slowly reproduced and preventing interruption of the images.

Kawamura et al (US 6,078,722) teach a method of and apparatus for decoding an encoded, time-division-multiplexed signal for display to a user in reverse playback, slow-reverse playback, and frame-by-frame-reverse playback modes of operation.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher O. Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on M-F 8:30-6:00.

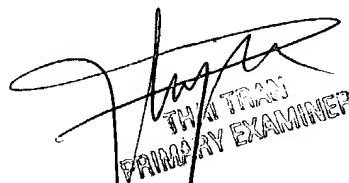
If attempts to reach the examiner by telephone are unsuccessful, the examiner's Acting supervisor, Thai Tran, can be reached on 703-305-4725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


COO

9/30/04


TINA TRAN
PRIMARY EXAMINER